



A.D. 1868, 24th FEBRUARY. N^o 616.

SPECIFICATION

OF

WILLIAM ROBERT LAKE.

ARTIFICIAL BREASTS.

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Artificial Breasts.

LETTERS PATENT to William Robert Lake, of the “International Patent Office,” No. 8, Southampton Buildings, Chancery Lane, in the County of Middlesex, Consulting Engineer, for the Invention of “**IMPROVEMENTS IN ARTIFICIAL BREASTS.**”—A communication from abroad by Hosea Wait Libbey, of Cleveland, Ohio, United States of America.

Sealed the 15th April 1868, and dated the 24th February 1868.

COMPLETE SPECIFICATION filed by the said William Robert Lake at the Office of the Commissioners of Patents, with his Petition and Declaration, on the 24th February 1868, pursuant to the 9th Section of the Patent Law Amendment Act, 1852.

5 **TO ALL TO WHOM THESE PRESENTS SHALL COME, I, WILLIAM ROBERT LAKE,** of the “International Patent Office,” No. 8, Southampton Buildings, Chancery Lane, in the County of Middlesex, Consulting Engineer, send greeting.

WHEREAS I am in possession of an Invention for “**IMPROVEMENTS**
10 **IN ARTIFICIAL BREASTS,**” and have petitioned Her Majesty to grant unto me, my executors, administrators, and assigns, Her Royal Letters Patent for the same, and have made solemn declaration that it has been communicated to me from abroad by Hosea Wait Libbey, of Cleveland, Ohio, United States of America.

Lake's Improvements in Artificial Breasts.

NOW KNOW YE, that I, the said William Robert Lake, do hereby declare that the following Complete Specification, under my hand and seal, fully describes and ascertains the nature of of the said Invention, and in what manner the same is to be performed, in and by the following statement, reference being had to the accompanying Sheet of Drawings 5 forming a part of this Specification :—

The said Invention relates to breast forms so arranged that the front part is made of elastic material and attached to a rigid base in such a way as to render the part inflatable by any convenient means. It is also designed in some cases to fill the said forms with 10 sponge or some other fibrous or textile material, or elastic sacks or capsules filled with air may be suitable for the purpose in which the form may or may not be inflated at the option of the wearer. I design also to construct the nipple of the forms with a tube and valve by which the forms may be inflated and through which the air 15 may be expelled, designing to construct and arrange the forms and their attachments in any manner substantially as set forth to obtain the same object.

DESCRIPTION OF THE DRAWINGS.

Figure 1 is a perspective view of my improved form ; Figure 2 is 20 a transverse section, and Figures 3 and 4 are detached sections of the same ; Figure 5 is a perspective view illustrating a modification of my improvements ; Figure 6 is a vertical section of the same ; Figure 7 is an enlarged view of the nipple and valve for inflating the form ; Figure 8 illustrates the manner of securing the outer membranes to 25 the central diaphragm. Like letters refer to the same parts in all of the Figures.

A is a disc or diaphragm constructed of vulcanized rubber, wood, papier maché, or any other material suitable for the purpose. Around the margin of this disc is cut a groove *a*, Figure 4, the purpose of which will 30 hereafter be shown ; C is an elastic air-tight covering or membrane placed upon and secured to the convex side of the disc A as follows :—The groove referred to is luted with some elastic varnish or other tenacious material on which is laid the membrane, the edge of which is again luted, and on this is stretched a piece of tape *a*¹ so that one edge of 35 the said tape will project beyond the edge of the disc. A cord is then wound tightly around, thereby pressing the membrane and tape or

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fillet down into the groove, the whole by this means is made permanently secure and air-tight as shown in Figure 4; B is a lining made of silk or other soft material, and is attached to the forms by being sewed on to the projecting edge of the tape or fillet as shown in 5 Figure 2. This lining when the form is worn is in contact with the tegument of the breast, a circular opening being made in the centre of the same for the admission of the nipple. D is a mouth piece for the purpose of inflating the form, and is made by gathering together the loose teguments of the elastic covering and tying them by a small 10 cord around a tube a^2 , Figure 3; this tube is connected to a button a^3 which forms the top of a small circular chamber opening into the space between the disc A and elastic covering. In the tube referred to is a stem b to the lower end of which is attached a valve c , the face of which is kept closely pressed against the inner face of the button which 15 forms the valve seat by the spring H. In the space between the covering C and diaphragm A is placed a certain quantity of sponge J, Figure 2, or other similar material. G is an elastic ligament connecting the two forms together passing from one to the other in front of the sternum, and B¹ are straps by which the said forms are secured to 20 the person. The manner of inflating the forms is as follows:—The mouth is applied to the nipple, when on blowing into the tube therein the valve is forced back from its seat and the air passes into the chamber, thence into the form, inflating the sponge and expanding the covering; the pressure of the air from within closes the valve and 25 thereby prevents its escape from the form. The inflated sponge gives strength to the expanded covering and consistency to the form, so that it will readily yield to the pressure of the clothing and still retains its fullness of figure and resiliency, and being constructed of light material it can be worn without discomfort to the person. The 30 concave depression shown at the point x , Figure 2, is for the purpose of receiving the chamber when the elastic covering is first laid on the diaphragm, so that the covering may be flatter upon the disc before being expanded by inflation, and thereby produce greater tension in the covering. This form is susceptible of various modifications without 35 changing the principle upon which it is constructed as seen in Figures 5, 6, 7, and 8.

A, Figure 6, represents the frame or diaphragm, which is a concave disc made of thin vulcanized rubber, wood, papier maché, thin metal, or other suitable material. The border or margin is provided with

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a circular groove or depression α , Figure 8; B, represents a lining membrane made of silk fabric, which when the form is worn is in contact with the integument of the breast. At the centre of this membrane is a circular opening b^* for the admission of the nipple; C, represents an air-tight elastic covering placed upon the outside or 5 convex side of the diaphragm A, and joined to the outer edge of the disc by first applying an elastic varnish or cement that will make it air-tight. A small cord is then wound tightly around in the groove α as seen at α^1 , Figure 8, around under the cord with the elastic covering is bound a piece of tape, the edges of which are allowed to project 10 from the rim of the frame. To this tape is secured the membrane or lining B so that on its becoming worn or soiled it can be easily replaced by a new one; D, represents a mouth piece which is provided with a screw stem E for the purpose of inflating the form. To the lower end of this stem is attached a valve E^1 , the face of which is 15 covered or packed with some elastic material α^4 ; b^1 is the valve seat which is secured to the elastic covering by a button b^2 into which the stem is screwed, and is also packed or faced with some elastic material like the valve. The nipple and stem are perforated to the point x and thence at right angles into the chamber between the valve and seat. 20 In order to inflate the form the valve is opened as shown in Figure 7, the nipple is then applied to the mouth and the necessary amount of air is forced in and retained, the valve being closed by means of the screw stem and button referred to. The face of the valve is thus brought up into its seat, thereby closing the side perforations in the 25 stem and making the whole secure and air-tight. F, F^1 , represent steel or other metallic springs which are attached to the outer margin of the discs, the free ends passing to the posterior portion of the chest and holding the discs in place; G, represents an elastic ligament which holds the two forms together passing from one to the other in front 30 of the sternum. In using this breast from the nipple D is turned so as to open the valve; the form is then inflated by an effort of the lungs and the valve closed, the form is then placed over the mammery gland and the springs properly adjusted; the inflation can be more or less as may be desired to suit any particular case or fancy. 35

The advantages of my improved breast form over others are as follows :— Ladies in whom the glands are not well developed use for the purpose of showing such developement, padding of various kinds which presses upon the glands, and by the increase of heat and constant pressure

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ultimately produces an irreparable injury, causing the nipple to retract and giving rise to tumors. With my improved breast forms neither of these evils can result; the nipple is not retracted, the natural growth of the breast is not retarded, and abundant opportunity is afforded
5 for insensible perspiration by a free admission of air under the form. Another advantage of no small magnitude is the expansion of the lungs of the wearer by the act of inflation. I design to arrange these forms with a chamber between the base and flexible front for the reception of milk, and to extend a tube or duct from the said chamber to the
10 papilla so as to form an artificial mammery gland for nursing.

Having thus fully described the said Invention as communicated to me by my foreign correspondent, and shown how the same may be conveniently and advantageously carried into practice, I claim,—

First. The elastic inflatable front C with a rigid base constructed
15 and arranged substantially as set forth.

Second. In combination with an elastic front and rigid base a tube pipe or inlet, provided with a valve or equivalent device, and an air escape passage, substantially as and for the purposes set forth.

Third. The use of sponge J or other suitable material in combination
20 with the elastic front and rigid base, substantially as and for the purpose set forth.

Fourth. The concave base in combination with the flexible front and devices for the inflation and expulsion of the air substantially as set forth.

25 In witness whereof, I, the said William Robert Lake, have hereunto set my hand and seal, this Twenty-fourth day of February, in the year of our Lord One thousand eight hundred and sixty-eight.

WILLIAM ROBERT LAKE. (L.S.)

Witness,

30 THO^s. N. PALMER,

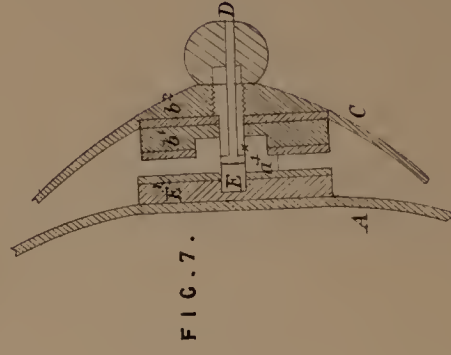
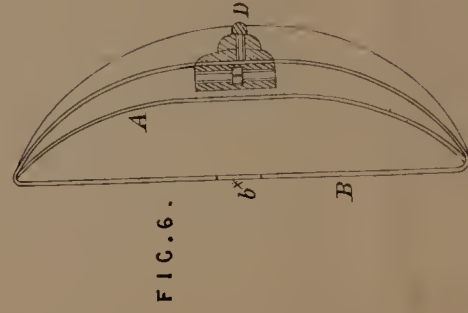
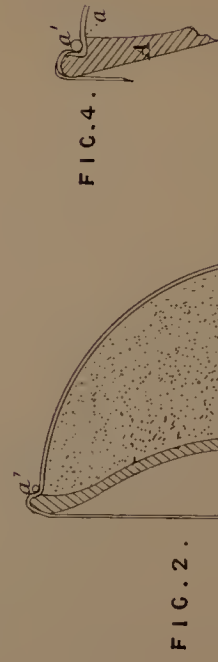
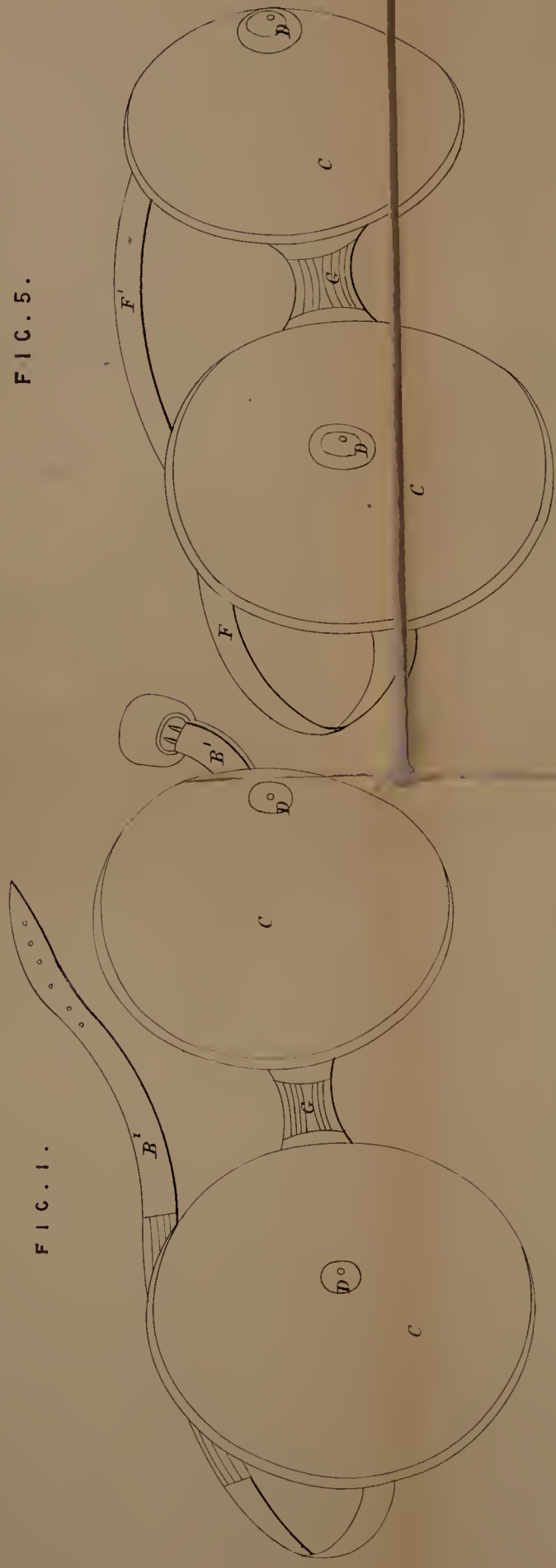
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W.C.

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The filed drawing is partly colored.

